

What is claimed is:

1. A prosthetic attachment locking device, comprising:

a body having an axial hole that extends between a first surface and a second surface;

a locking mechanism having a central axle with a pawl that communicates with the

5 axial hole, the pawl being displaceable to selectively engage with an attachment pin received
in the axial hole; and

the locking mechanism having a one-way clutch and a ratchet, the one-way clutch and
the ratchet being formed to receive the central axle and permit one-way rotation of the pawl.

10 2. The device of claim 1, wherein the one-way clutch rotatably mounts the centering axle.

3. The device of claim 1, wherein the ratchet non-rotatably mounts the centering axle.

4. The device of claim 1, wherein the locking mechanism includes a release button attached to
15 the central axle and biased by a first compression spring.

5. The device of claim 4, wherein the release button includes an undercut for receiving the first
compression spring.

20 6. The device of claim 1, wherein the ratchet includes a driving portion that engages with a
stationary portion.

7. The device of claim 6, wherein the stationary portion is integrally formed with the body.

8. The device of claim 6, wherein the stationary portion is integrally formed with a sleeve of the locking mechanism.
- 5 9. The device of claim 6, wherein the locking mechanism includes a second compression spring that biases the driving portion into engagement with the stationary portion.
- 10 10. The device of claim 1, wherein the body is formed from a plastic material.
- 10 11. The device of claim 1, wherein the body is formed from an aluminum alloy.
12. The device of claim 1, wherein the ratchet and the one-way clutch are arranged in a sleeve.
13. The device of claim 12 wherein the body includes a locking mechanism that engages the sleeve to retain the sleeve within the body.
14. The device of claim 1, wherein the first surface of the body is formed with an integral socket adapter.
- 20 15. The device of claim 1, further comprising a socket adapter and hollow cylindrical spacers, the hollow cylindrical spacers being arranged between the body and the socket adapter.

16. The device of claim 1, further comprising a socket adapter having screw receiving apertures, the screw receiving apertures corresponding to a second set of through-holes formed in the body.
- 5 17. The device of claim 16, wherein the body has no more than three of the through-holes and the through-holes are arranged in a substantially triangular configuration.
- 10 18. The device of claim 1, wherein the attachment pin includes a pin body with a plurality of ratcheted teeth, the ratcheted teeth having a substantially flat engaging surface and a depth from an outer circumference to the pin body of approximately 1/16 of an inch.
- 15 19. The device of claim 1, wherein the body includes a bushing that is receivable in the axial hole, the bushing having an outwardly extending flange for guiding the attachment pin into the body.
- 20 20. The device of claim 1, wherein the one-way clutch acts as a bearing for the central axle.
- 25 21. A locking mechanism for a prosthetic attachment locking device, comprising:
 a central axle having a pawl;
 a one-way clutch rotatably mounting the central axle that permits one-way rotation of the central axle;
- 30 a ratchet non-rotatably mounting the central axle that permits one-way rotation of the central axle; and

a release button attached to the central axle and biased by a first compression spring,
the release button being moveable to displace the central axle and the pawl.

22. The locking mechanism of claim 21, wherein the ratchet includes a driving portion that
5 engages with a stationary portion.

23. The locking mechanism of claim 22, wherein the first compression spring biases the driving
portion into engagement with the stationary portion.

10 24. The locking mechanism of claim 21, further comprising a sleeve that receives the central
axle, the one-way clutch, and the ratchet.

25. The locking mechanism of claim 24, wherein the ratchet includes a driving portion and a
stationary portion and the stationary portion is integrally formed with the sleeve.

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26. The locking mechanism of claim 24, wherein the sleeve has a threaded outer surface.

27. The locking mechanism of claim 21, wherein the release button has an undercut for receiving
the first compression spring.

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28. The locking mechanism of claim 21, wherein the one-way clutch acts as a bearing for the
central axle.

29. The locking mechanism of claim 21, further comprising a second compression spring for further biasing the release button.